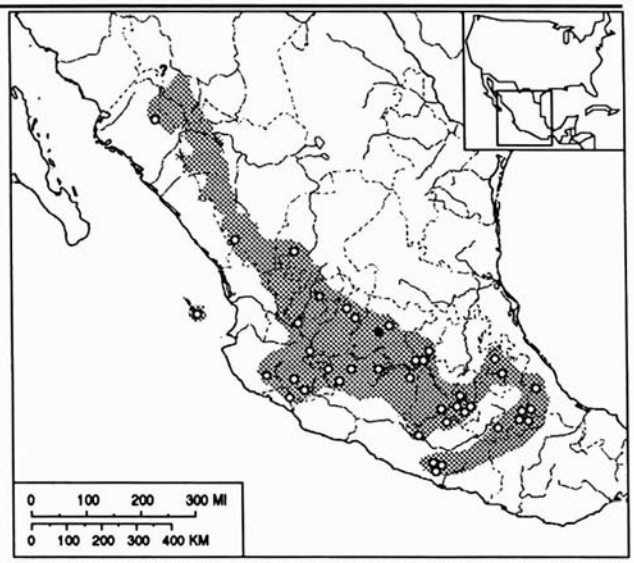
Catalogue of American Amphibians and Reptiles.

McDiarmid, R.W. and S.H. Folke. 1991. *Tantilla bocourti.*

Tantilla bocourti (Günther)
Bocourt's Black-headed Snake

Homalocranion coronatum: Bocourt, 1883:589, pl. 37, figs. 5, 5a-d.
Homalocranium melanocephalum var. *bocourti* Günther, 1895:148.
Homalocranium bocourti Günther, 1895:149. Originally stated locality, "Mexico, Guanajuato," restricted to "Guanajuato, Guanajuato, Mexico" by Smith and Taylor (1950:330). Syntypes, British Museum (Natural History) BMNH 1946.1.8.70 [formerly BMNH 94.10.2.1], obtained on exchange from Muséum National d'Histoire Naturelle, Paris (formerly MNHN 3694), male, collected by Dr. Alfredo Dugés, date unknown (not examined by authors), and Muséum National d'Histoire Naturelle, Paris MNHN 3694, male, collected by Dr. Alfredo Dugés, date of collection unknown (examined by authors). See Comment.
Homalocranium bocourti: Boulenger, 1896:224. Designation of BMNH 1946.1.8.70 as lectotype. Type-locality "Guanajuato," Mexico.
Homalocranion bocourti: Stejneger, 1902:157. First use of the combination.
Tantilla bocourti: Cope, 1896:1021. First use of the combination.
Tantilla bocourti bocourti: Smith and Laufe, 1945:348.



Map. Known localities of *Tantilla bocourti.* The type-locality is indicated by the solid symbol. The question mark indicates uncertain range boundaries.

• **Content.** No subspecies are recognized currently (see Nomenclatural History).

• **Definition.** *Tantilla bocourti* is a relatively large (to 396 mm total length) species of *Tantilla* with a uniform light reddish brown, dusky brown, or tan dorsum only slightly differentiated from a yellowish white venter. The top and sides of the head (= head-cap) are black or dark brown; pale areas occur on the snout, along the upper lip, and behind the eye; a pale (cream) nuchal collar bounds the head-cap posteriorly and is itself bounded posteriorly by a dark border. The dark head-cap is uniform to irregularly mottled; when mottled, areas around the eyes and bordering the collar are darkest. Usually the internasals are white, except for a dark border along their posterior margins. Most of the 1st, the lower parts of the 2nd, 3rd, and 4th, all of the 5th, and the anterior half of the 6th and posterior part of the 7th upper labials are white. The dark head-cap usually extends to the labial margin along the suture between the 6th and 7th upper labial scales. In some specimens isolated irregular pale spots are anterior on the supraocular, posterior on the supraocular and adjacent anterior edge of the parietal, and in the pineal area on each side of the parietal suture. A complete, pale nuchal collar (rarely partially interrupted medially by narrow dark extensions from the head-cap or posterior collar border), 1 - 2 scales wide borders the head-cap at or sometimes on the posterior tips of the parietals and is followed posteriorly by a dark, 1 - 2 scales wide border. The eye is half as long as the snout. The tail is 21.0 - 22.5 % of the total length in males and 16.0 - 20.0 % in females. Pertinent scalation characteristics include: 7 upper and 6 or 7 lower labials; 1 preocular; 2 postoculars; internasals

Figure 1. *Tantilla bocourti* (LACM 122012) from Zacatecas, Mexico (McCranie, 1977). Photo courtesy of E. Casano and J.R. McCranie.

more than half as long as prefrontals; 1+1 temporals, the anterior elongate and in contact with postoculars, posterior about as broad as long, more scale-like; 160 - 179 ventrals in males and 166 - 195 in females; 55 - 61 subcaudals in males and 47 - 58 in females; total ventrals + subcaudals are 220 -240 in males and 219 - 252 in females. The contact of the medial sutures separating the internasals and the prefrontals is asymmetrical. Some specimens have a distinct loreal, probably split from the lateral portion of the prefrontal or from the preocular. In most specimens, the prefrontal is separated from the labials and contacts the tip of the 2nd upper labial in a few. The mental contacts the anterior genials or is separated from them by the medial contact of the 1st lower labials. The number of maxillary teeth, including posterior grooved fangs, ranges from 12 to 14.

• **Descriptions.** The two type specimens of *T. bocourti* were described originally as *Homalocranion coronatum* by Bocourt (1883) and later as *Homalocranium bocourti* by Günther (1895). General descriptions of *bocourti* are in Davis and Dixon (1959); Davis and Smith (1953); Dixon et al. (1962); Dunn (1928); Hartweg (1944); McDiarmid et al. (1976); Smith (1942, 1943, 1947); Smith and Laufe (1945); Taylor (1936, 1940); and Taylor and Smith (1938). Keys to species of *Tantilla* that include *T. bocourti* are in Smith (1942: see Comments section), Smith and Taylor (1945), Werner (1924), and Wilson (1982).

• **Illustrations.** Diagrammatic illustrations of the head of *Tantilla bocourti* were presented by Bocourt (1883: dorsal, ventral, and lateral views and details of the nasal and rostral scales), by Taylor (1936: dorsal, lateral and ventral views), and by McDiarmid et al. (1976: dorsal and lateral views). A photograph of the oviduct was published by Clark (1970).

• **Distribution.** *Tantilla bocourti* ranges from northeastern Sinaloa, southern Durango, and western Zacatecas south through Jalisco and Colima and east through Aguascalientes, Guanajuato, Michoacán, southern Querétaro, Hidalgo, México (including the Distrito Federal), Guerrero, Morelos, Puebla, and into central Veracruz (McDiarmid et al., 1976; Smith, 1942; Smith & Laufe, 1945; Smith & Taylor, 1945). McDiarmid et al. (1976) reported a specimen from Isla María Cleofas and presented a map of the known range of the species. Most specimens have been found in pine-oak and tropical deciduous forests at elevations between 1500 and 2200m, but documented localities are at elevations below 400m on María Cleofas Island and south and southwest of Colima, near 850m in the Chilpancingo region of Guerrero, and as high as 2450m in Aguascalientes and 2510m in Querétaro. One specimen was collected from oak-acacia and savannah grassland habitat in southern México (state) by Dixon et al. (1962). Davis and Smith (1953) noted that all eight specimens they reported from Morelos were found under rocks, and McCranie's (1977) specimen from Zacatecas (Figure 1) was found under a log. The María Cleofas specimen was collected in dry leaf litter along a dry stream bed (McDiarmid et al., 1976).

• **Fossil Record.** None.

• **Pertinent Literature.** The most complete published works on *Tantilla bocourti* are by McDiarmid et al. (1976), McDiarmid (in press), and Smith (1942); they summarized morphological variation, general species distribution, and systematic status. Additional information on morphological characteristics and systematic relationships and status are in Bocourt (1883), Clark (1970), Davis and Dixon (1959), Davis and Smith (1953), Dixon et al. (1962), Dunn (1928), Günther (1895), Hartweg (1944), Smith (1947), and Taylor (1936). Comments on specific localities are given for the Chilpancingo region of Guerrero (Davis & Dixon, 1959), Michoacán (Duellman, 1961, 1965), México (Dixon et al., 1962), and southwestern Durango (Webb and Baker, 1962). Cope (1900) recorded *T. bocourti* from the Toltecan subregion (Mediocolumbian Region) of the Arctogaean Realm, and Gadow (1905) mentioned the species in his discussion of the biogeography of the Mexican herpetofauna. Beltrán (1953) listed the type locality in his treatment of the wildlife along the Pan-American Highway, and Martín del Campo (1955) included *T. bocourti* in his tabulation of the herpetofauna of the Valley of Mexico. McCranie and Wilson (1987) listed *T. bocourti* as a member of the of the Pine-oak Woodland Assemblage in their discussion of the biogeography of the herpetofauna of the Sierra Madre Occidental of México. Listing of the species under various names is included in general works by Dugés (1869, 1895, 1896) for records from Guanajuato, México; Gadow (1911) for opisthoglyphous colubrinae with elapoid coloration (pale red without black spots); Phisalix (1922) for venomous serpents of the Americas; Amaral (1929) for snakes from the Neotropical Region; and Smith and Smith (1976) in their synopsis of the herpetofauna of Mexico. Smith (1941) reviewed dentition characteristics in the genus and noted intraspecific variation for the average number of teeth in *bocourti*, some having 10+2 and others 11+2 or 12+2 teeth. McDiarmid et al. (1976) reported three enlarged ova on each side in a large (349 mm total length) female from Sinaloa. Clark (1970) discussed the evolutionary loss of the left oviduct among some members of the genus.

• **Nomenclatural History.** *Tantilla bocourti* was first reported as *Homalocranion coronatum* by Bocourt (1883), based on two specimens from Guanajuato, México sent to the Paris Museum by Alfredo Dugés. Günther (1895) proposed the name *Homalocranium bocourti* for these same specimens. Shortly after Günther's description, Boulenger (1896:224) listed a single specimen in the British Museum as the "type" and indicated that it had been obtained as an exchange from the Paris Museum. We interpret Boulenger's statement as the action of designating one of the syntypes (BMNH 1946.1.8.70) as the lectotype. The wording of Article 74(a) of the code clearly supports without ambiguity our interpretation of Boulenger's action (International Commission on Zoological Nomenclature, 1985). In the same year that Boulenger's catalogue appeared, Cope (1896) listed the combination *Tantilla bocourti* for the first time in his account of the distribution of the North American herpetofauna. Dunn (1928) suggested the possibility of subspecific ranking for *bocourti* and *deviatrix*, a species described by Barbour (1916) from a single specimen from San Luis Potosí, but differences in the head characters of specimens that he had examined precluded such ranking in his view. Hartweg (1944) also suggested subspecific ranking for *deviatrix* and *bocourti* based on his examination of an "intermediate specimen" from the state of Puebla. Smith and Laufe (1945) formally proposed *deviatrix* and *bocourti* as subspecies based on Hartweg's specimen and another specimen from Hidalgo that purportedly was intermediate in locality and morphology. Clark (1970) disagreed with such ranking, based on his examination of the oviduct in the two subspecies. McDiarmid (in press) showed that the type of *Tantilla deviatrix* is actually a specimen of *Tantilla wilcoxi*; thus *bocourti* has no subspecies.

• **Etymology.** The name *bocourti* is a patronym proposed to honor Marie-Firmin Bocourt, who first described the species in the monumental work *Mission Scientifique au Mexique*... detailing what was known at the time about the herpetofauna of Mexico.

• **Comment.** Ivan Ineich (pers. comm.) informed us that MNHN 3694 originally included two specimens and that one was exchanged in 1894. Ineich indicated that this exchange probably was with the British Museum. We concur with his assessment and conclude that the exchanged specimen is now BMNH 1946.1.8.70. Based on comparisons of the drawings in Bocourt (1883) with MNHN

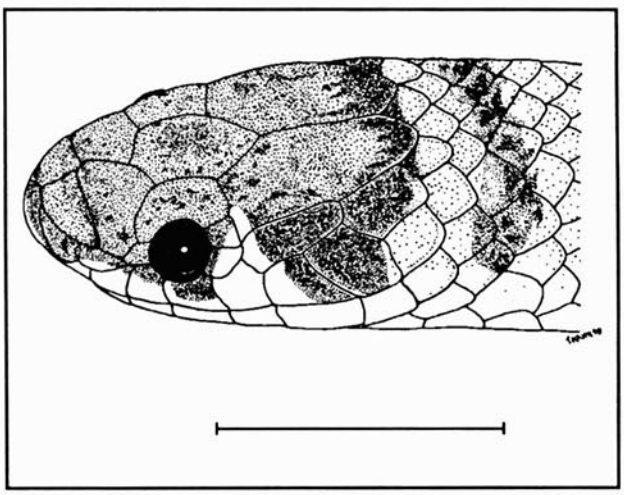


Figure 2. Illustration of the head pattern of *Tantilla bocourti* (based on USNM 304282 from Ciénega, Sierra de Laurel, Aguascalientes, México; see McCranie and Wilson, 1984). Line equals 5 mm.

3694, the length of one of the specimens described by Bocourt (1883), and the specimen listed in the type description by Günther (1895), the specimen exchanged to the British Museum and designated as the lectotype of *Tantilla bocourti* by Boulenger (1896) is the same specimen that was illustrated in Bocourt (1883). Consequently, the specimen MNHN 3694 currently in the Paris Museum is the paralectotype of *Tantilla bocourti*.

The key to species of *Tantilla* by Smith (1942) contains an apparent error; he referred to the anterior temporals as about as broad as long in *bocourti*. However, as Smith (1942:36) correctly pointed out, the shape of the posterior temporals (about as broad as long, scale-like), not the anterior temporals, serves to distinguish *T. bocourti* from similar species. Temporal scales have been shown to vary between sides on an individual (see descriptions of Morelos specimens reported by Davis and Smith, 1953 and Sinaloa specimen reported by McDiarmid et al., 1976), between individuals (see comments by Davis and Dixon, 1959; Smith and Laufe, 1945; and Taylor, 1940) from the same site, and among individuals from different sites.

Taylor and Smith (1938) discerned a slight increase from east to west in ventral plus subcaudal counts, and commented that specimens from near Cuernavaca were usually darker than specimens from Tehuacan, Puebla. Later Smith (1942) argued that considerable overlap existed between the eastern and western populations.

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